233 North Michigan Avenue Suite 1621 Chicago, IL 60601 312-856-8700 Fax 312-938-0118



PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

MORTON INTERNATIONAL, INC., BATAVIA (FORMERLY WHITTAKER CORPORATION, BATAVIA COATINGS AND CHEMICALS DIVISION) BATAVIA, ILLINOIS ILD 095 309 647

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Waste Programs Enforcement Washington, DC 20460

C05087 Work Assignment No.

EPA Region

ILD 095 309 647 Site No. Date Prepared September 27, 1993

Contract No. 68-W9-0006 PRC No. 009-C05087IL9L

PRC Environmental Management, Inc. Prepared by

(Keith Foszcz)

Shin Ahn Contractor Project Manager

Telephone No. (312) 856-8700

Kevin Pierard — 9 30 93 EPA Work Assignment Manager

(312) 886-4448 Telephone No.

EPA Region 5 Records Ctr.

392212

CONTENTS

Section	<u>)II</u>	<u>Page</u>
EXEC	CUTIVE	SUMMARY ES-1
1.0	INTR	ODUCTION 1
2.0	FACI	LITY DESCRIPTION
	2.1 2.2 2.3 2.4 2.5 2.6	FACILITY LOCATION 4 FACILITY OPERATIONS 4 WASTE GENERATION AND MANAGEMENT 6 HISTORY OF DOCUMENTED RELEASES 11 REGULATORY HISTORY 14 ENVIRONMENTAL SETTING 16 2.6.1 Climate 16 2.6.2 Flood Plain and Surface Water 18 2.6.3 Geology and Soils 18 2.6.4 Groundwater 19
	2.7	RECEPTORS 20
3.0	SOLI	D WASTE MANAGEMENT UNITS
4.0	ARE	AS OF CONCERN
5.0	COM	CLUSIONS AND RECOMMENDATIONS
REFE	RENCE	ES 39
Apper	<u>ıdix</u>	
A	EPA I	PRELIMINARY ASSESSMENT FORM 2070-12
В	VISU.	AL SITE INSPECTION SUMMARY AND PHOTOGRAPHS
С	VISIJ	AL SITE INSPECTION FIELD NOTES

H

FIGURES

Figure	<u>Pa</u>	<u>ze</u>
1	FACILITY LOCATION	5
2	FACILITY LAYOUT	8
	TABLES	
<u> Table</u>	<u>Pa</u>	ge
1	SOLID WASTE MANAGEMENT UNITS	7
2.	SOLID WASTES	9
3	UNDERGROUND STORAGE TANKS	17
4	SWMU AND AOC SUMMARY	37

RELEASED 18
DATE 9 20 18
RIN \$ 2018-009867
INITIALS 9 W

EXECUTIVE SUMMARY

ENFORCEMENT CONSIDENTIAL

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (FA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Morton International, Inc., Batavia (Morton) facility in Batavia, Kane County, Illinois. The facility was formerly known as the Whittaker Corporation, Batavia Coatings and Chemicals Division (Whittaker) facility. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Appendix A to assist in prioritizing RCRA facilities for corrective action.

The Morton facility produces industrial coatings using batch mixing and blending operations involving organic solvents and organic resins. The facility currently generates and manages the following waste streams: waste solvents (F003 and F005), still bottoms (F003 and F005), baghouse dust (nonhazardous), waste oil (nonhazardous), and paint-related waste (F003 and F005). The facility also generated the following two one-time wastes: contaminated soil (F003 and F005) and nonhazardous special waste liquid. The contaminated soil was excavated from around the Waste Solvent Aboveground Storage Tank (AST) (SWMU 3) and placed in the Former Waste Pile (SWMU 8), thus constituting a RCRA-waste pile. The Illinois Environmental Protection Agency (IEPA) requested that the facility undergo RCRA closure with respect to SWMU 8. Morton began closure of SWMU 8 in September 1992. RCRA closure activities at SWMU 8 are ongoing. The nonhazardous special waste liquid resulted from a release from leaking underground storage tanks (UST) in the Old UST Farm (AOC 1). The liquid consisted of about 8,750 gallons of groundwater contaminated with volatile organic compounds (VOC).

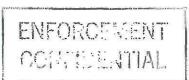
The facility has operated at its current location since 1979. The facility occupies 11.7 acres in an industrial area and employs about 84 people. Whittaker submitted a Notification of Hazardous Waste Activity form to EPA on August 18, 1980, and a RCRA Part A permit application on November 19, 1980. The Part A permit application lists the facility as a treatment, storage, or disposal (TSD) facility with container storage (S01), referring to the Former Container Storage Area (CSA) (SWMU 1). In July, 1989, Whittaker requested that its Part A permit application be withdrawn

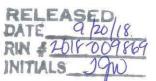
1111

1.00

NA IF

110





because the facility never stored hazardous waste on site for more than 90 days. In September 1989, IEPA withdrew the facility's Part A permit application as a TSD facility and granted it generator status. However, in October 1991, the facility placed 131 cubic yards of contaminated soil (F003 and F005) in the Former Waste Pile (SWMU 8). IEPA requested that the facility undergo RCRA closure with respect to SWMU 8, which was comprised of a RCRA waste pile. The origin of the contaminated soil was from the surrounding soils of the Waste Solvent AST (SWMU 3). The facility's current regulatory status is that of a TSD facility. In March 1990, the facility ownership was transferred from Whittaker to the new owner, Morton Coatings, Inc., later merged with Morton International, to form the current facility owner, Morton International, Inc.

The PA/VSI identified the following eight SWMUs and two AOCs at the facility:

Solid Waste Management Units

- 1. Former Container Storage Area (CSA)
- 2. Distillation Unit Area
- 3. Waste Solvent AST
- 4. Spill Collection UST
- Dust Collection Area
- Waste Oil Accumulation Area
- 7. Laboratory Satellite Accumulation Area (SAA)
- 8. Former Waste Pile

Areas of Concern

1 1

他们

- 1. Old UST Farm
- 2. Heating Oil UST

The potential for release to groundwater, surface water, air, and on-site soils from SWMUs 1, 2, 4, 5, 6, and 7 is low. SWMUs 2, 6, and 7 are indoors; wastes were stored covered in SWMUs 1, 2, 4, 5, 6, and 7; no floor drains are located near SWMUs 2 and 7; and SWMUs 6 and 7 have adequate secondary containment.

The potential for release to surface water and air from the Waste Solvent AST (SWMU 3) is low because VOC contamination is confined to subsurface soils, wastes are managed in a closed system, and the unit has adequate secondary containment. The unit was moved in 1991 to accommodate the installation of a new tank farm. About 131 cubic yards of soil contaminated with F003 and F005

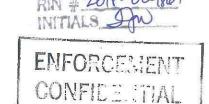
wastes was excavated from the unit's former location, stored at SWMU 8, and disposed off site. Final sampling activities at the bottom of the excavation indicated ethylbenzene, toluene, and total xylene contamination at concentrations ranging from 0.027 parts per million (ppm) to 1.10 ppm in subsurface soil before the excavation was backfilled. Morton plans to obtain approval of the excavation backfilling at the former location of SWMU 3 with the closure of the Former Waste Pile (SWMU 8) The potential for release to groundwater from SWMU 3 is moderate because of the presence of residual VOC contamination in subsurface soils.

The potentia for release to surface water and air from the Former Waste Pile (SWMU 8) is low because VOC contamination is confined to subsurface soils. RCRA closure activities of this unit began in September 1992, and are currently ongoing. During closure activities, several VOCs were identified in surface soils at concentrations ranging from 5.8 parts per billion (ppb) to 577 ppb. No toxicity characteristic leaching procedure (TCLP) metals were detected. The potential for release to groundwater from SWMU 8 is moderate because VOC contamination was discovered in surface soils during closure activities.

The potential for release to surface water and air from the Old UST Farm (AOC 1) is low because possible convamination is contained below an asphalt surface. The tank farm has been inactive since October 1992. The facility plans to remove the tank farm pending IEPA approval of the work plan. Fill lines leading to the tanks were found to be leaking during tightness testing conducted in October 1989. Groundwater samples collected from inspection ports in this area contained total VOC concentrations exceeding 25,000 ppm. VOCs were also identified in subsurface soils about 3 feet west of the tank fill area.

The potential for release to environmental media from the Heating Oil UST (AOC 2) is moderate because of the unknown integrity of the 14-year-old, steel UST. The unit has not been leak tested and has been inactive since 1986.

Receptors of potential releases from the Morton facility include Morton employees and nearby residents of Batavia. The nearest residences lie about 0.4 mile southwest of the facility. Facility access is partially controlled by a 6-foot-high fence topped by three strands of barbed wire. The rear



Wint.

and east sides of the facility are fenced and have electronically controlled access gates. The front of the facility is locked, and access is monitored.

The city of Batavia's water supply comes from two bedrock groundwater well fields located about 1 mile southwest and 2 miles south of the facility. Farms north of the facility are served by private groundwater wells. The probable direction of groundwater flow is east. The nearest surface water body, the Fox River, is located about 1.7 miles west of the facility and is used for recreational purposes.

Sensitive environments are not located on site, and no endangered species inhabit Kane County. The nearest wetland environment lies about 700 feet east of the facility; another is located about 1,000 feet west of the facility. These wetlands are identified as a palustrine, unconsolidated bottom, forested-deciduous area. About 30 additional areas described as wetland environments lie within 2 miles of the facility.

PRC recommends no further action for SWMUs 1, 2, 5, 6, and 7. PRC recommends that approval of the excavation backfilling at the former location of the Waste Solvent AST (SWMU 3) continue as scheduled. The Spill Collection UST (SWMU 4) should be leak tested. RCRA closure of the Former Waste Pile (SWMU 8) should continue as scheduled. Contaminated soils associated with the Old UST Farm (AOC 1) should be remediated, and the removal of the UST farm should continue under IEPA supervision. Soil sampling at the AOC 1 excavation should be conducted to verify that all contaminated soil has been removed during remediation, and groundwater sampling should continue. The Heating Oil UST (AOC 2) should be removed under IEPA supervision. Soil sampling at the AOC 2 excavation should be conducted to verify that all potentially contaminated soil was removed.



Ited !

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

(-1

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report cocuments the results of a PA/VSI of the Morton International, Inc., Batavia (Morton), facility (EPA Identification No. ILD 095 309 647) in Batavia, Kane County, Illinois. The facility

was formerly known as the Whittaker Corporation, Batavia Coatings and Chemicals Division (Whittaker) facility. The PA was completed on May 10, 1993. PRC gathered and reviewed information from Illinois Environmental Protection Agency (IEPA); the U.S. Department of Commerce (USDOC); the U.S. Department of the Interior (DOI); the U.S. Geological Survey (USGS); and from EPA Region 5 RCRA files. The VSI was conducted on May 12, 1993. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified eight SWMUs and two AOCs at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Appendix A. The VSI is summarized and seven inspection photographs are included in Appendix B. Field notes from the VSI are included in Appendix C.

(2)

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors.

2.1 FACILITY LOCATION

The Morton facility is located at 1500 Lathern Street in Batavia, Kane County, Illinois. Figure 1 shows the location of the facility in relation to the surrounding topographic features (latitude 41°52'05" N and longitude 88°16'17" W) (Whittaker 1980b). The facility occupies 11.7 acres in an industrial area.

The facility is bordered on the north by Lathern Avenue and several small industrial companies; on the west by a self-storage complex; on the south by Burlington Northern Railroad and FERMI National Accelerator Laboratory (FERMI); and on the east by FERMI.

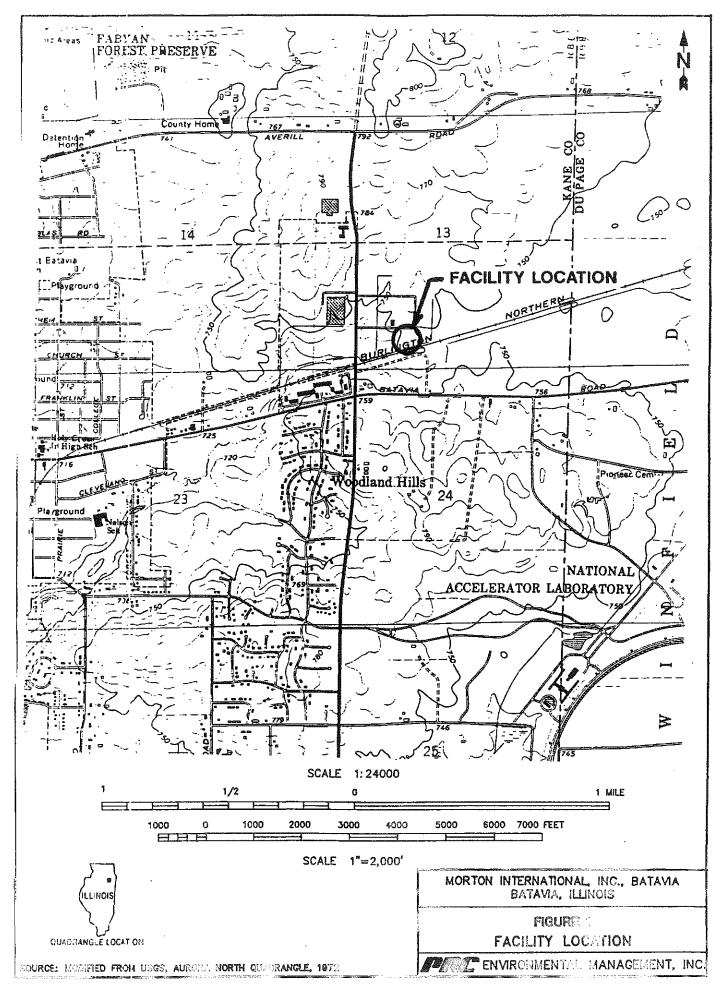
2.2 FACILITY OPERATIONS

idely.

1000

The facility produces industrial coatings using batch mixing and blending operations involving organic solvents and organic resins. Raw materials used in the manufacturing process are stored in an underground storage tank (UST) farm and aboveground storage tanks (AST). Two UST farms exist at the facility. A new UST farm was installed in 1992 to replace the Old UST Farm (AOC 1) installed in 1979. The ASTs consist of five 5000-gallon; two 6000-gallon; and four 10000-gallon ASTs with secondary containment for storage of organic resins, and the Waste Solvent AST (SWMU 2).

Empty drums for finished product shipping are stored in the Former Container Storage Area (CSA) (SWMU 1). Off-specification material and waste solvents from process cleaning are treated in the Distillation Unit Area (SWMU 2). Methyl ethyl ketone (MEK) is recovered in the distillation process and is reused as a cleaning solvent for on-site use. Morton purchases no cleaning solvents.



C11

Whittaker began operations in 1979 with the construction of the facility, which occupies 11.7 acres. The facility consists of one 68,000-square-foot building for manufacturing and warehousing finished products (IT 1992a). In March 1990, Whittaker sold the facility to Morton Coatings, Inc., Morton's parent company (Morton 1990). Morton continued the same manufacturing operations as Whittaker. Morton Coatings, Inc., later merged with Morton International to form the current facility owner and operator, Morton International, Inc. (PRC 1993e). The facility employs about 84 people working three shifts 5 days a week. Before 1979, the facility's current location consisted of a vacant meadow.

Solid wastes generated from facility operations and the SWMUs where they are managed are discussed in detail in Section 2.3.

2.3 WASTE GENERATION AND MANAGEMENT

This section describes waste generation and management at the Morton facility. The facility's SWMUs are identified in Table 1. The facility layout, including the locations of SWMUs and AOCs, is shown in Figure 2. The facility's waste streams are summarized in Table 2.

The facility currently generates the following waste streams: waste solvents (F003 and F005), still bottoms (F003 and F005), baghouse dust (nonhazardous), waste oil (nonhazardous), and paint-related waste (F003 and F005). The facility formerly generated the following two one-time wastes: contaminated soil (F003 and F005), and nonhazardous special waste liquid. All current facility wastes are generated during production of industrial coatings.

Batch reactor and associated pipe cleaning generates waste solvents (F003 and F005). This waste is placed in 400-gallon totes and transported to the Distillation Unit Area (SWMU 2) for treatment. MEK is recovered from SWMU 2 and reused as a cleaning solvent. Before 1984, 400-gallon totes of waste solvent were stored in the Former CSA (SWMU 1). The American Chemical Services (ACS) of Griffith, Indiana, treated the waste off site. Morton purchased the distillates back from ACS for reuse as cleaning solvents. Between 1984 and 1986, waste solvent was stored in the Waste Solvent AST (SWMU 3) and also treated off site by ACS. Off-specification product is also treated in SWMU 2. About 50,000 gallons of wastes are treated in SWMU 2 annually. Still bottoms (F003 and F005) generated in SWMU 2 from the treatment of wastes are piped directly from SWMU 2 to

TABLE I SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit ^a	Status
1	Former CSA	No	Inactive
2	Distillation Unit Area	No	Active
3	Waste Solvent AST	No	Active; less than 90-day storage of hazardous waste
4	Spill Collection UST	No	Active
5	Dust Collection Area	No	Active
6	Waste Oil Accumulation Area	No	Active
7	Laboratory Satellite Accumulation Area (SAA)	No	Active
8	Former Waste Pile	Yes	Inactive; awaiting IEPA closure approval

Note:

(E)

 C_{-}

A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.

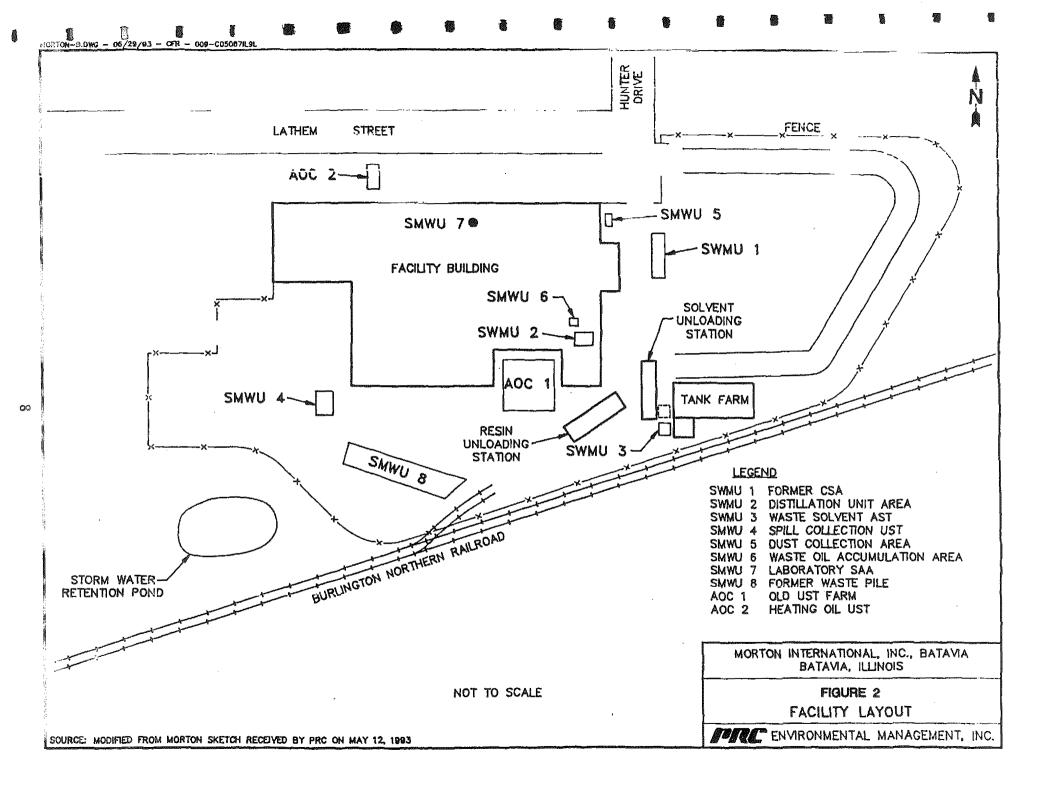


TABLE 2 SOLID WASTES

Waste solvents/F003 and F005 Still bottoms/F003 and F005	Batch reactor and pipe cleaning Treatment of waste	SWMUs 1, 2, and 3
Still bottoms/F003 and F005	Treatment of waste	ANNUAL AND AND A
	solvents	SWMU 3
Baghouse dust/NA	Pigment blending	SWMUs 3 and 5
Waste oil/NA	General maintenance	SWMU 6
Paint-related waste/F003 and F005	Laboratory testing	SWMUs 1, 2, 3, and 7
Contaminated soil/F003 and F005	Release from SWMU 3	SWMU 8
Special waste liquid/NA	Leaking USTs from AOC 1	SWMU 4

SWMU 3. Nonpumpable still bottoms are scraped from SWMU 2 into a 55-gallon drum. This waste is thinned in the drum with waste liquid from SWMU 2 and then pumped to SWMU 3. About 36,000 gallons of waste is transported from SWMU 3 by Mr. Frank, Inc., to either Avganics Industries of Cottage Grove, Wisconsin, or Clean Harbors of Chicago, Illinois, for fuel blending.

Blending of organic and inorganic pigment powders in the batch reactors generates baghouse dust. The batch reactors are covered during the blending processes and are vented to a baghouse collection system. Nonhazardous baghouse dust is collected in the Dust Collection Area (SWMU 5), which are comprised of three 55-gallon drums directly below the baghouse. When full, the drums are transported to the Distillation Unit Area (SWMU 2) where the baghouse dust is mixed with waste liquid from SWMU 2. The mixture is then pumped to the Waste Solvent AST (SWMU 3). About one 55-gallon drum of baghouse dust is generated per month. This waste is transported by Mr. Frank. Inc., to either Avganics Industries of Cottage Grove, Wisconsin, or Clean Harbors of Chicago, Ill nois, for fuel blending.

General maintenance of compressors, gear boxes, and the Distillation Unit Area (SWMU 2) generates nonhazardous waste oil. This waste is stored in 55-gallon drums in the Waste Oil Accumulation Area (SWMU 6). About 200 gallons of this waste is generated annually. When the drum is full, the waste is transported and reclaimed by R&S Services of Monee, Illinois (PRC 1993d).

The facility has an on-site laboratory that performs quality control tests on finished product. The laboratory generates paint-related wastes (F003 and F005) in its quality control tests. This waste is stored in a 55-gallon drum in the Laboratory SAA (SWMU 7). About 7,500 gallons of this waste is generated annually. When full, the drum is transported to the Distillation Unit Area (SWMU 2) and the contents are then treated. Before 1984, this waste was stored in the Former CSA (SWMU 1); between 1984 and 1986 the waste was stored in the Waste Solvent AST (SWMU 3). ACS of Griffith, Indiana, treated the waste off site. Morton purchased the distillates back from ACS for reuse as cleaning solvents.

In October 1991, 131 cubic yards of contaminated soil (F003 and F005) was excavated from the former location of the Waste Solvent AST (SWMU 3) (see Section 2.4). This waste was placed in the Former Waste Pile (SWMU 8). In July 1992, the waste was transported and disposed by

Chemical Waste Management, Inc. (Chem Waste), Calumet Industrial Depot (CID) of Calumet, Illinois.

In 1989, the Old UST Farm (AOC 1) was found to be leaking during UST tightness tests (see Section 2.4) Groundwater was sampled from inspection ports around AOC 1, and analyses indicated volatile organic compound (VOC) contamination. About 8,750 gallons of contaminated groundwater was pumped from the inspection ports to the Spill Collection UST (SWMU 4). This waste was transported by BEST Environmental Corporation as nonhazardous special waste liquid and disposed at Century Resources in Alsip, Illinois.

2.4 HISTORY OF DOCUMENTED RELEASES

This section discusses the history of documented releases to groundwater, surface water, air, and onsite soils at the facility.

In Septembe 1989, groundwater from eight inspection ports around the Old UST Farm (AOC 1) were sampled and analyzed. The analysis revealed high levels of organics in the groundwater in two of the eight inspection ports. VOCs were detected at total concentrations of 25,272 and 35,055 parts per million (ppm) in these two inspection ports. Analysis of four other inspection ports indicated total VOC concentrations of 7.2, 4.1, and less than 0.5 ppm. VOCs detected include 1,2-dichloroethane; 1,2-dichloropropane; ethylbenzene; methyl isobutyl ketone; and toluene. Ethylbenzene and toluene were present at the highest concentrations (CH2M 1990).

The Old UST farm (AOC 1) contained seven 10,000-gallon and seven 5,000-gallon USTs and associated piping. The tanks were installed in 1979 in a 45- by 70-foot wide by 12-foot deep pit. The eight inspection ports, consisting of 12-inch diameter perforated galvanized corrugated steel pipe, were installed between the tanks before backfilling (CH2M 1990).

In October 1989, Tanknology Corporation International (Tanknology) performed UST tightness tests on the USTs in the Old UST Farm (AOC 1). Results from Tanknology indicate that all 14 USTs in the farm passed the tightness tests, seven remote fill lines showed detectable leakage, and two supply lines from the tanks to the building showed possible leaks. The facility stopped using remote fill

lines that did not pass the tightness test in November 1989 (Whittaker 1989). About 8,750 gallons of contaminated groundwater was pumped from the inspection ports to the Spill Collection UST (SWMU 4) for off-site disposal.

Four soil borings were drilled in the Old UST Farm (AOC 1) area in December 1989 for soil sampling and monitoring well installation. Boring depths ranged from 36 to 60 feet below the ground surface (bgs). VOC analyses of soil samples collected from the four soil borings reveal that only one sample contained VOCs at concentrations exceeding the method detection limit of 1 part per billion (ppb). Ethy benzene, toluene, and total xylenes were present at a total concentration of 350 ppb. This sample was collected from a depth of 5 to 6.5 feet bgs, about 3 feet west of the tank farm fill area. Another sample was collected from the same boring at a depth of 22.5 to 24 feet bgs and contained no detectable levels of VOCs. Groundwater samples collected from the monitoring wells contained no VOC concentrations exceeding the method detection limit (CH2M 1990). Morton stopped using this UST Farm after the installation of the new UST farm in October 1992. Morton plans to remediate the contaminated soils during removal of the unused USTs after IEPA approval of the work plan.

In September 1991, soil samples were collected from beneath and around the perimeter of the Waste Solvent AST (SWMU 3) containment dike because the unit was to be moved to accommodate a new UST installation. Soil analyses were conducted to indicate whether soils around SWMU 3 had been mpacted by F003 and F005 wastes stored in the unit. Four soil borings were drilled inside the dike walls and four were drilled outside the dike walls. Borings were drilled to a depth of 5 feet bgs. Ten soil samples were collected from six of the eight soil borings. Analyses of the soil samples indicate one or more F003 (ethylbenzene and xylene) and F005 (toluene and benzene) constituents in all soil samples except one collected at 0.5 to 1.5 feet bgs. Ethylbenzene, toluene, and xylene were detected in most samples at concentrations ranging from 0.01 to 0.52 ppm. One sample collected at a depth of 1.5 feet bgs contained toluene at a concentration of 36.2 ppm. In addition, trichloroethylene was detected in two soil samples at concentrations of 0.314 and 0.006 ppm. A groundwater sample collected from one of the eight boreholes contained the F003 and F005 constituents and three chlorinated organic constituents. The highest concentrations of VOCs detected in the groundwater samples included toluene at 4.74 ppm and xylene at 4.11 ppm (IT 1992a).

CC3

Remediation of soils around the Waste Solvent AST (SWMU 3) began in October 1991. The concrete pad and containment dike were broken and removed, and the pieces of concrete were steam cleaned. Gravel from below the concrete pad, concrete footings, and 90 cubic yards of soil were removed from the area and placed in the Former Waste Pile (SWMU 8) on a 20 mil, polyethylenelined containment area. The excavation created a 20- by 22-foot hole that ranged from 2 to 6 feet deep. Water that accumulated in the excavation was placed in a temporary storage tank for disposal. Seventeen soil samples were collected from the bottom and sides of the excavation and analyzed for VOCs (IT 1992a).

Analytical results indicate the presence of several VOCs above the method detection limits in 10 of the 17 soil samples collected from the floor and sides of the Waste Solvent AST (SWMU 3) excavation. Toluene was detected in eight samples at concentrations ranging from 0.14 to 14.9 ppm. Total xylenes were detected in eight samples at concentrations ranging from 0.01 to 6.52 ppm. Benzene; ethylbenzene; MEK; 1,2-dichloroethene; and trichloroethene were detected in several samples from 0.002 to 1.24 ppm. One to two feet of additional soil was removed from the bottom and side walls of the SWMU 3 excavation. A second round of 17 soil samples were collected from the bottom and side walls of the excavation and analyzed for VOCs (IT 1992a).

Analytical results of the second round of soil samples from the Waste Solvent AST (SWMU 3) excavation indicate that VOC contamination was still present in subsurface soil. Total xylenes were detected in five samples at concentrations ranging from 0.015 to 2.02 ppm. Toluene; benzene; ethylbenzene; MEK; 1,2-dichloroethene; and chloroform were detected in several samples at concentrations ranging from 0.006 to 0.44 ppm. An additional 3 to 6 feet of soil was removed from the bottom of the excavation along its east side. Three additional soil samples were collected from the bottom of the excavation in this area. VOCs were detected in two of the three samples. Total xylenes were detected at 0.47 and 1.1 ppm, ethylbenzene at 0.1 ppm, and toluene at 0.027 and 0.042 ppm (TT 1992a). The excavation was then backfilled with clean soil (PRC 1993d). A total of 131 cubic yards of soil was removed from the SWMU 3 excavation and placed in the Former Waste Pile (SWMU 8) (IT 1992a). Morton plans to obtain approval of the excavation backfilling at the former locat on of SWMU 3 with the closure of SWMU 8 (PRC 1993f).

During RCRA closure activities of the Former Waste Pile (SWMU 8) in September 1992, 29 surface soil samples were collected from soils below and around SWMU 8. Eight soil samples were obtained from beneath SWMU 8 and 21 from its outside perimeter (IT 1992a). VOCs were identified above detection limits in four of the 29 soil samples. VOCs were detected at concentrations ranging from 5.8 to 577 ppb and include 1,2-dichloroethene; 1,2-dichloropropane; ethylbenzene; tetrachloroethane; toluene; trichloroethylene; and total xylenes (Morton 1992).

The 29 surface soil samples from SWMU 8 were also analyzed for metal constituents. Arsenic was detected in all 29 samples at an average concentration of 6.47 ppm. Cadmium was detected in one sample at a concentration of 0.31 ppm. Lead was detected in all 29 samples at an average concentration of 64.6 ppm. Mercury was detected in 12 soil samples at an average concentration of 0.017 ppm (Morton 1992). IEPA requested that toxicity characteristic leaching procedure (TCLP) analysis be conducted on the three samples that contained the highest metal concentrations. TCLP metal analysis revealed barium at 0.454 to 1.33 ppm in two samples, and selenium in one sample at a concentration of 0.12 ppm (IT 1992b). IEPA also requested that the surface soil sampling location from which the sample containing the highest total VOC concentration was collected be resampled at a depth of 18 to 24 inches bgs and analyzed for VOCs and that one of the three TCLP metal sampling locations be resampled at a depth of 6 to 12 inches bgs and analyzed for TCLP metals including arsenic, cadmium, lead, and selenium (IT 1993).

In May 1993, two additional soil samples were collected from below the Former Waste Pile (SWMU 8), the sampling location from which samples containing the highest VOC concentrations were collected, as requested by IEPA. Morton has not yet received the sample analysis for these two samples (PRC 1993e). RCRA closure activities at SWMU 8 are ongoing.

2.5 REGULATORY HISTORY

1620

dia.

Whittaker firs: submitted a Notification of Hazardous Waste Activity form to EPA on August 18, 1980, as a treatment, storage, or disposal (TSD) facility (Whittaker 1980a). Whittaker submitted a RCRA Part A permit application on November 19, 1980 (Whittaker 1980b). This application lists the process code S01 (container storage) with a design capacity of 10,000 gallons for the Former CSA (SWMU 1). Hazardous wastes listed in the Part A permit application include the following:

F002	F003	F005	K078	K079	K080
K082	U002	U031	U043	U107	U112
U140	U147	U154	U159	U161	U162
U171	U220	U223	U228	U238	U239

The application lists an estimated annual generation rate of 2,000 pounds of K082 waste and a combined estimated annual generation of 75,000 pounds of the remaining wastes.

In July 1989, Whittaker requested that its Part A permit application be withdrawn because the facility never stored hazardous wastes on site for more than 90 days. In September 1989, the IEPA withdrew the facility's Part A permit application as an interim status TSD facility and granted the facility generator status (IEPA 1989).

In March 1990, the facility underwent a change of ownership. The previous owner, Whittaker, sold the facility to Morton Coatings, Inc., who submitted a subsequent Notification of Hazardous Waste Activity form indicating the change of ownership. This notification indicated that the facility was a generator of hazardous wastes (F001 and F003) (Morton Coatings, Inc. 1990). Morton Coatings, Inc. later merged with Morton International to form the current facility owner, Morton International, Inc. (PRC 1993e).

In October 1991, the facility excavated soil from around the Waste Solvent AST (SWMU 3) contaminated with F003 and F005 wastes. This contaminated soil was placed in the Former Waste Pile (SWMU 8). IEPA requested that the facility undergo RCRA closure with respect to SWMU 8, which was comprised of a RCRA waste pile (IEPA 1991). IEPA approved the closure plan to close the waste pile storage area with conditions and modifications in May 1992 (IEPA 1992). Morton began closure activities of SWMU 8 in September 1992. RCRA closure activities at SWMU 8 are ongoing.

In the past, Morton had few RCRA compliance problems. IEPA conducted a compliance inspection on February 2, 1982, and an F-solvent waste compliance inspection on March 15, 1988 (IEPA 1982 and 1988). Inspectors noted violations related to the contingency plan, inspection logs, and F-solvent manifest attachments. The facility responded to the 1988 inspection with approved corrective actions (EPA 1988).

3

Morton had a total of 30 USTs. The capacity, contents, and date installed for each UST are presented in Table 3. All USTs installed in 1979 are constructed of single-wall steel and have underground steel piping. All USTs installed in 1992 are 12,000-gallon tanks compartmentalized into two 6,000-gallon tanks constructed of double-wall steel with interstitial monitoring and cathodic protection. These USTs have aboveground piping. Fourteen of the 16 USTs installed in 1979 are part of the Old UST Farm (AOC 1). The underground piping of AOC 1 was found to be leaking in 1989. AOC 1 is still in place at the facility; however, Morton stopped using AOC 1 in October 1992 after the installation of the new UST farm in March 1992. Morton also plans to remove the Heating Oil UST (AOC 2) with the removal of the Old UST Farm (AOC 1).

The facility is required to have an operating air permit. The facility representatives stated that Morton has one air permit for all air emissions, IEPA No. 089 010 ABZ. The facility has no history of odor complaints from area residents. The facility does not have and is not required to have a National Pollutant Discharge Elimination system (NPDES) permit or a sewer discharge permit.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and groundwater in the vicinity of the facility. Unless otherwise cited, all information in this section was obtained from the Initial Site Investigation Report by CH2M (CH2M 1990).

2.6.1 Climate

The climate in Kane County is continental. The average daily temperature is 49.4 °F. The lowest average daily temperature is 24.3 °F in January. The highest average daily temperature is 73.7 °F in July (USDOC 1974).

The total annual precipitation for the county is 33.8 inches (USDOC 1974). The mean annual lake evaporation for the area is about 30 inches (USDOC 1968). The 1-year, 24-hour maximum rainfall is about 2.5 inches (USDOC 1963).

TABLE 3
UNDERGROUND STORAGE TANKS

10,000 Methylene chloride 1979 10,000 MEK 1979 10,000 Ethyl alcohol 1979 10,000 Acetate 1979 10,000 Xylene 1979 10,000 Methyl isobutyl ketone 1979 10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Petroleum naphtha mixture 1979 5,000 Petroleum naphtha mixture 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	Capacity (gallons)	Contents	Date Installed
10,000 MEK 1979 10,000 Ethyl alcohol 1979 10,000 Acetate 1979 10,000 Xylene 1979 10,000 Methyl isobutyl ketone 1979 10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Petroleum naphtha mixture 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992			
10,000 Ethyl alcohol 1979 10,000 Acetate 1979 10,000 Xylene 1979 10,000 Toluene 1979 10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 N-butyl alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Methylene chloride	1979
10,000 Acetate 1979 10,000 Xylene 1979 10,000 Toluene 1979 10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	MEK	1979
10,000 Xylene 1979 10,000 Toluene 1979 10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Ethyl alcohol	1979
10,000 Toluene 1979 10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Acetate	1979
10,000 Methyl isobutyl ketone 1979 5,000 Petroleum naphtha 1979 5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Xylene	1979
5,000 Petroleum naphtha 1979 5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Toluene	1979
5,000 Di-isodecyl phthalate 1979 5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Methyl isobutyl ketone	1979
5,000 Petroleum naphtha mixture 1979 5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	Petroleum naphtha	1979
5,000 Ethylene glycol butyl ether 1979 5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	Di-isodecyl phthalate	1979
5,000 Wash solvent 1979 5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	Petroleum naphtha mixture	1979
5,000 N-butyl alcohol 1979 5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	Ethylene glycol butyl ether	1979
5,000 Di-acetone alcohol 1979 10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	Wash solvent	1979
10,000 Heating oil (AOC 2) 1979 10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	N-butyl alcohol	1979
10,000 Spill contents (SWMU 4) 1979 6,000 Di-isodecyl phthalate 1992 6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	5,000	Di-acetone alcohol	1979
6,000 Di-isodecyl phthalate 1992 6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Heating oil (AOC 2)	1979
6,000 Isophorone 1992 6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	10,000	Spill contents (SWMU 4)	1979
6,000 Petroleum naphtha 1992 6,000 Toluene 1992 6,000 Dibagicester 1992	6,000	Di-isodecyl phthalate	19 92
6,000 Toluene 1992 6,000 Dibagicester 1992	6,000	Isophorone	1992
6,000 Dibagicester 1992	6,000	Petroleum naphtha	1992
	6,000	Toluene	1992
6 000 Petroleum naphtha mixture 1992	6,000	Dibagicester	1992
chan rangiami influent invitora	6,000	Petroleum naphtha mixture	1992
6,000 Ethylene glycol butyl ether 1992	6,000	Ethylene glycol butyl ether	1992
6,000 Xylene 1992	6,000	Xylene	1992
6,000 Acetate 1992	6,000	Acetate	1992
6,000 MEK 1992	6,000	MEK	1992
6,000 N-butanol 1992	6,000	N-butanol	1992
6,000 Ethanol 1992	6,000	Ethanol	1992
6,000 Dichloromethane 1992	6,000	Dichloromethane	1992
6,000 Di-acetone alcohol 1992	6,000	Di-acetone alcohol	1992

The prevailing wind is from the southwest. Average wind speed in highest in April at 11.7 miles per hour (USDOC 1974).

2.6.2 Flood Plain and Surface Water

The Morton facility is not located in a 100- or 500-year flood plain (PRC 1993b). The nearest surface water body, the Fox River, is located 1.7 miles west of the facility and is used for recreational purposes. The Fox River flows into the Illinois River about 60 miles southwest of the facility. The Fox River is used as a municipal water supply for the city of Aurora, Illinois. Fox River intakes are located about 5 miles downstream from the city of Batavia (PRC 1993c; USGS 1972).

Land surface slopes steepen about 1.5 miles west of the facility along the banks of the Fox River.

The land surface is relatively flat east of the facility. Facility surface water runoff is directed through a storm sewer and drainage ditch to a storm water retention pond. Surface runoff enters the Fox River through an unnamed intermittent creek from the storm water retention pond about 2.5 stream miles southwest of the facility.

2.6.3 Geology and Soils

The primary topographic features in the area of the facility are end moraines characterized by broad, hilly ridges; broad plains of sand and gravel; and the Fox River Valley. The facility rests on the Minooka Mcraine, which trends north to south. The Minooka Moraine rises 40 feet above the base land surface elevation west of the Fox River.

Surficial unconsolidated deposits range in thickness from 10 feet near the Fox River to 100 feet near the facility. These deposits consist of a mix of glacial, alluvial, colluvial, and eolian deposits. The Minooka Moraine is the easternmost morainal ridge of the Valporasio Morainic system in Kane County. The predominant surficial glacial deposit in Kane County east of the Fox River is the Yorkville Till Member of the Wedron Formation. This till contains more than 40 percent clay and ess than 15 percent sand and is the finest grained till in Kane County.

The facility is underlain by glacial-clay till of the Wedron Formation containing a trace of gravel to a depth of about 45 feet bgs. Sand and gravel outwash deposits about 20 feet thick separate the glacial-clay till and bedrock. Bedrock was encountered about 65 feet bgs.

Coarse-grained glacial deposits are also present in the area. Parts of the Wedron Formation contain lenses of sand and gravel. The Batavia Member of the Henry Formation is present along the Fox River and its tributaries. The Batavia Member is an outwash consisting of sand, gravel, and silt deposited along the front of many Wisconsin moraines in discontinuous sheet-like deposits. Its presence has been observed overlying the Wedron Formation in Kane County.

Soils beneath the Yorkville Till include the Malden Till Member of the Wedron Formation and a basal sand and gravel outwash. The Malden Till is comprised of predominantly sandy to silty till that averages 36 percent sand, 43 percent silt, and 21 percent clay. This till contains inclusions of sand and gravel. Basal sand and gravel lies directly on the eroded bedrock surface.

A local north-south trending bedrock topographic high exists below the facility. Its elevation is about 680 to 690 feet above mean sea level. The bedrock sequence from near surface to a depth of 2,200 feet bgs consists of approximately 70 feet of Silurian Niagaran-Alexandrian Dolomite; 850 feet of Ordovician Maquoketa Dolomite, Maquoketa Shale, Galena-Platteville Dolomite, Glenwood Sandstone, Saint Peter Sandstone, Saint Peter Shale, and Prairie du Chien Group-Oneota Dolomite; and 1,280 feet of Cambrian Eminence-Potosi Dolomite, Franconia Formation, Ironton-Galesville Sandstone, Eau Claire Formation, and Mount Simon Sandstone. These thicknesses are reported in the geologic log for one of the City of Batavia's wells. The Mount Simon Sandstone is approximately 2,225 feet thick in this area and directly overlies Precambrian Era granite-rhyolite rock.

2.6.4 Groundwater

683

Groundwater in the county is derived from four aquifers: a shallow sand and gravel aquifer, a shallow dolomite aquifer, a Cambrian-Ordovician aquifer, and a Elmhurst-Mount Simon aquifer. Sands and gravels within the surficial drift deposits yield 100 to 500 gallons per minute (gpm) of water. The shallow dolomite aquifer comprised of the Silurian Dolomite and the Maquoketa Shale is present near the facility. The Cambrian-Ordovician aquifer system comprised of the Galena-

Platteville Dolomite, Glenwood-Saint Peter Sandstone, Cambrian Eminence-Potosi Dolomite, Franconia Formation, and Ironton-Galesville Sandstone is present throughout Kane County. The Elmhurst Sandstone member of the Eau Claire Formation and the Mount Simon Sandstone are connected hydraulically and form the deepest fresh water aquifer in northern Illinois.

The probable direction of groundwater flow within the basal sand and gravel outwash aquifer is east at an average linear velocity of 0.006 feet per day. The water table is located about 7 to 15 feet bgs at the facility. No sand or gravel water supply wells exist within 2 miles of the facility. Several bedrock wells are located within 2 miles of the facility. Private farms to the north are serviced by groundwater wells. Batavia municipal well fields are located about 1 mile southwest and 2 miles south of the facility (CH2M 1990; PRC 1993a).

2.7 RECEPTORS

The facility occupies 11.7 acres in an industrial area in Batavia, Illinois. Batavia has a population of about 17,076 (Rand McNally 1992).

The facility is bordered on the north by Lathem Avenue and several small industrial companies; on the west by a self-storage complex; on the south by Burlington Northern Railroad and FERMI; and on the east by FERMI. The nearest residential area is located about 0.4 mile southwest of the facility. The nearest school is located about 1.3 miles southwest of the facility. Facility access is partially controlled by a 6-foot-high fence topped by three strands of barbed wire. The rear and east sides of the facility are fenced and have electronically controlled access gates. The front of the facility is locked, and access is monitored.

The nearest surface water body, the Fox River, is located 1.7 miles west of the facility and is used for recreational purposes. The Fox River flows into the Illinois River about 60 miles southwest of the facility. The Fox River is used as a municipal water supply for the city of Aurora, Illinois. These intakes are located about 5 miles downstream from the city of Batavia.

Groundwater is used as a municipal and private water supply. The nearest drinking water well is located 1 mile southwest and upgradient from the facility. The nearest industrial well is located about 2.5 miles southeast of and downgradient from the facility.

Sensitive environments are not located on site. No endangered species inhabit Kane County (DOI 1989). The nearest wetland environment lies about 700 feet east of the facility; another is located about 1,000 feet west of the facility. These wetlands are identified as a palustrine, unconsolidated bottom, forested-deciduous area. About 30 additional areas described as wetland environments lie within 2 miles of the facility (DOI 1984).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the eight SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 2 shows the SWMU locations.

SWMU 1

Former CSA

Unit Description:

This unit is located outdoors east of the facility building. The unit is located on a gravel surface at the edge of an asphalt parking lot and measures about 15 by 75 feet. The unit's area is flat. A storm sewer is located about 30 feet west of the unit.

Date of Startup:

This unit began operation in 1979.

Date of Closure:

This unit has been inactive since 1984.

Wastes Managed:

This unit managed waste solvent (F003 and F005) and paint-related waste (F003 and F005) in 400-gallon totes. This waste was treated off site, and the distillate was returned to the facility for reuse as cleaning solvent. Wastes were stored in this unit for less than 90 days.

Release Controls:

This unit had no release controls.

History of

Documented Releases:

No releases from this unit have been documented. In December 1989, four monitoring wells were installed in the southeast section of the facility. One of these monitoring wells is located about 15 feet east and downgradient of the unit at a depth of 37 feet bgs. Two sampling events conducted at this monitoring well in 1990 indicated no VOCs in

the groundwater (Morton 1993). Morton continues to sample the wells for VOCs annually.

Observations:

During the VSI, the unit contained empty drums for product shipping. PRC noted no evidence of release (see Photograph No. 1).

SWMU 2

Distillation Unit Area

Unit Description:

This unit is located indoors in the southeast corner of the facility building. The unit consists of two stills, a transfer tote, and associated piping. One still was installed in 1986 and the other in 1990. Both operate 24 hours per day. The unit is located on a concrete floor near a garage door entrance and measures about 25 by 15 feet. Wastes are brought to this unit in closed 400-gallon totes. The distillate recovered from this unit is reused as a cleaning solvent. Still bottoms are piped directly to the Waste Solvent AST (SWMU 3). No floor drains are located near the unit.

Date of Startup:

This unit began operation in 1986.

Date of Closure:

This unit is active.

Wastes Managed:

This unit treats waste solvents (F003 and F005) and paint-related waste (F003 and F005). Distillate recovered from this unit is reused as a cleaning solvent. Still bottoms from this unit are managed in the Waste Solvent AST (SWMU 3). Nonpumpable still bottoms are scraped from the sides and bottom of the unit and placed in a 55-gallon drum. This waste is thinned with other waste from the unit and then pumped to SWMU 3.

Release Controls:

The unit is located indoors on a concrete floor.

History of

Documented Releases:

No releases from this unit have been documented.

Observations:

During the VSI, the unit was treating waste solvent. PRC noted no evidence of release (see Photograph No. 2).

SWMU 3

Waste Solvent AST

Unit Description:

This unit is located outdoors in the southeast corner of the facility building south of the Former CSA (SWMU 1). The 5,000-gallon steel AST is located in a concrete containment pit that measures 15 feet by 15 feet by 5 feet deep. The new UST fill station has a drain that leads to this containment pit. The AST was formerly located about 25 feet north of its current location on a concrete pad with a 9-inch containment dike. It was moved in 1991 to accommodate the new UST farm.

Date of Startup:

This unit began operation in 1984.

Date of Closure:

This unit is active.

Wastes Managed:

This unit manages still bottoms (F003 and F005) from the Distillation Unit Area (SWMU 2) and baghouse dust (nonhazardous). This waste is ultimately picked up for off-site disposal as a fuel blend. The unit formerly managed waste solvents (F002 and F005) and paint-related waste (F003 and F005).

Release Controls:

The unit is located within a concrete pit. This pit is not drained.

History of

ect.

Documented Releases:

In 1991, 131 cubic yards of contaminated soil (F003 and F005) was excavated from the unit's former location and disposed off site. Final

sampling analysis indicated VOCs in subsurface soil at concentrations up to 1.1 ppm at time the excavation was backfilled.

Observations:

During the VSI, the containment pit was dry. A surface water drainage ditch is located about 15 feet south of the unit. The drainage ditch ultimately leads to the Fox River. PRC noted no evidence of release (see Photograph No. 3).

SWMU 4

Spill Collection UST

Unit Description:

This unit is located southwest of the facility building and consists of a 10,000-gallon UST used for spill collection. All floor drains within the facility building lead to this unit. The unit is constructed of single-wall steel. Facility representatives stated that this unit was used only once to store contaminated groundwater from the Old UST Farm (AOC 1).

Date of Startup:

This unit began operation in 1979.

Date of Closure:

This unit is considered active; however, it has not been used since 1990.

Wastes Managed:

This unit managed nonhazardous special waste liquid.

Reléase Controls:

This unit has no release controls.

History of

Documented Releases:

No releases from this unit have been documented.

Observations:

This underground unit was not observed during the VSI. No photograph of this unit was taken because the unit was not identified

as a SWMU until after the VSI.

SWMU 5

Dust Collection Area

Unit Description:

This unit is located outdoors northwest of the Former CSA (SWMU 1). The unit consists of three 55-gallon drums located on a concrete pad that measures about 6 by 12 feet. The concrete pad is surrounded by asphalt. The drums are connected to the baghouse by rubber ducts. When full, the drums are moved to the Distillation Unit Area (SWMU 2), and the drum contents are mixed with waste from SWMU 2. This mixture is then pumped to the Waste Solvent AST (SWMU 3). A storm sewer is located about 50 feet south of the unit.

Date of Startup:

This unit began operation in 1979.

Date of Closure:

This unit is active.

Wastes Managed:

This unit manages nonhazardous baghouse dust in 55-gallon drums. The dust is generated from the blending of organic and inorganic pigment powders. This waste is also managed in the Waste Solvent AST (SWMU 3).

Release Controls:

This unit is located outdoors on a concrete pad surrounded by asphalt.

History of

Documented Releases:

No releases from this unit have been documented.

Observations:

27.0

During the VSI, the unit contained one nearly full drum and two empty drums. PRC noted no evidence of release (see Photograph No. 4).

SWMU 6

Waste Oil Accumulation Area

Unit Description:

This unit is located indoors just north of the Distillation Unit Area (SWMU 2). The unit consists of two 55-gallon drums of waste oil from gear box, compressor, and SWMU 2 maintenance. The unit is located on a concrete floor. Floor drains in the unit's area lead to the

Spill Collection UST (SWMU 4).

Date of Startup:

This unit began operation in 1979.

Date of Closure:

This unit is active.

Wastes Managed:

This unit manages nonhazardous waste oil in 55-gallon drums. This waste is ultimately reclaimed off site.

Release Controls:

The unit is located on a concrete floor. Floor drains in the unit's area lead to the Spill Collection UST (SWMU 4).

History of

Documented Releases:

No releases from this unit have been documented.

Observations:

During the VSI, the unit contained two full 55-gallon drums of waste. PRC noted no evidence of release. No photograph of this unit was taken.

SWMU 7

C) 1

Laboratory SAA

Unit Description:

This unit is located within the facility's on-site laboratory on a concrete floor covered with polyethylene sheeting. This unit measures about 4 by 4 feet. Polyethylene sheeting also covers the laboratory walls where the unit is located. The unit consists of a 55-gallon drum

on wheels and a covered funnel attached to the drum. No floor drains are located near the unit.

Date of Startup:

This unit began operation in 1979.

Date of Closure:

This unit is active.

Wastes Managed:

This unit manages paint-related wastes (F003 and F005) generated from quality control testing of the finished product.

Release Cortrols:

The unit is located in a corner of the on-site laboratory on a concrete floor. The floor and walls near the unit are covered with polyethylene sheeting.

History of

Documented Releases:

No releases from this unit have been documented.

Observations:

During the VSI, the unit contained about 30 gallons of waste. PRC noted no evidence of release (see Photograph No. 5).

SWMU 8

Former Waste Pile

Unit Description:

This unit was located outdoors south of the facility building. The unit measured about 24 by 125 feet and consisted of 131 cubic yards of contaminated soil (F003 and F005) on a 20-mil-thick polyethylene liner bermed with pallets on all sides. The unit was also covered with a 20-mil-thick polyethylene sheeting. No storm drains were located near the unit.

Date of Startup:

This unit began operation in 1991.

Date of Closure:

This unit became inactive in 1992; RCRA closure activities are ongoing.

Wastes Maraged:

This unit managed contaminated soil (F003 and F005). This waste was disposed of at Chem Waste, CID after 8 months of storage at the facility.

Release Controls:

The unit is covered and lined with 20-mil-thick polyethylene sheeting.

History of Documented Releases:

During closure, four out of 29 soil samples collected indicated VOC contamination at concentrations ranging from 5.8 to 577 ppb.

Contaminants detected include 1,2-dichloropropane;
1,2-dichloroethene; ethylbenzene; tetrachloroethane; toluene; trichloroethene; and total xylenes.

Observations:

U

前權

E.J.

During the VSI, the unit was no longer at the site. The former location of the unit consisted of a graded gravel ground surface. A surface water drainage ditch is located about 20 feet south of the unit's former location. PRC noted no evidence of release (see Photograph No. 6).

4.0 AREAS OF CONCERN

PRC identified two AOCs during the PA/VSI. These AOCs are discussed below; their locations are shown in Figure 2.

AOC 1 Old UST Farm

This AOC is an old UST farm installed in 1979 that contains seven 10,000-gallon and seven 5,000-gallon tanks and associated piping. The AOC is located just south of the facility building below an asphalt ground surface. During tightness testing of the tank farm in October 1989, all 14 USTs passed the test; however, seven remote fill lines did not. Groundwater was sampled from eight inspection ports in the Old UST Farm and analyzed for VOCs. Six samples contained detectable VOC levels, and two of these samples contained total VOC concentrations exceeding 25,000 ppm (see Section 2.4) (CH2M 1990). Morton plans to remediate possibly contaminated soil after the removal of the UST farm, which awaits IEPA approval of the work plan (see Photograph No. 7).

AOC 2 Heating Oil UST

This AOC is a 10,000-gallon UST installed in 1979. Operation of this UST ceased in 1986. The tank is empty and is located below the facility parking lot just north of the facility building. The UST is constructed of single-wall steel. Morton plans to remove this UST at the same time it removes and remediates the Old UST Farm (AOC 1) (PRC 1993d). The UST has not been leak tested. PRC believes that the Heating Oil UST is an AOC because the UST may have released contaminants to onsite soils. No photograph of this unit was taken because the unit was not identified as an AOC during the VSI.



5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VS' identified eight SWMUs and two AOCs at the Morton facility. Background information on the facility's location; operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU and AOC. Table 4, located at the end of this section, summarizes the SWMUs and AOCs at the facility and the recommended further actions.

SWMU 1

Former CSA

Conclusions:

This unit, which has been inactive since 1984, was located outdoors on a gravel ground surface. A groundwater monitoring well is located downgradient from the unit. No VOCs have been detected in groundwater samples collected from this well. No releases from this unit have been documented. Wastes were stored covered in 400-gallon totes for less than 90 days. The unit's area is relatively flat. A storm sewer is located about 30 feet west of the unit. The potential for release to groundwater, surface water, air, and on-site soils is low.

Recommendations:

PRC recommends no further action for this SWMU at this time.

SWMU 2

Distillation Unit Area

Conclusions:

to befor

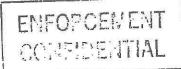
400

6

出學

The unit is located indoors on a concrete floor near a garage door entrance. Wastes are brought to this unit in closed 400-gallon totes. The distillate recovered from this unit is recovered and reused as a cleaning solvent. No releases from this unit have been documented. Wastes from the unit are pumped to the Waste Solvent AST (SWMU 3). Wastes treated in this unit are volatile; however, the distillation system is a closed system except for the





removal of nonpumpable still bottoms. The potential for release to groundwater, surface water, air, and on-site soils is low.

Recommendations:

PRC recommends no further action for this SWMU at this time.

SWMU 3

Waste Solvent AST

Conclusions:

The unit is located outdoors in a concrete containment pit. The unit was moved to its current location in 1991. It was formerly located about 25 feet north of its current location. About 131 cubic yards of contaminated soil (F003 and F005) was excavated from the unit's former location and disposed of off site. VOCs were identified in excavated soils at concentrations up to 36.2 ppm. Final sampling analyses indicated VOCs in subsurface soil at concentrations up to 1.1 ppm at the time the excavation was backfilled. The potential for release to environmental media is summarized below.

Groundwater: The potential for release is moderate. VOCs were identified in excavated soils at concentrations up to 36.2 ppm. VOCs remain in on-site soils at concentrations up to 1.1 ppm in the unit's former location.

Surface Water: The potential for release is low. VOC contamination at the unit's former location is limited to subsurface soils. The unit is located about 15 feet from a surface water drainage ditch; however, the unit has adequate secondary containment.

Air: The potential for release is low. VOC contamination at the unit's former location is limited to subsurface soils. Volatile wastes are managed in a closed system.

Recommendations:

11 4

面山

PRC recommends that approval of the excavation backfilling at the former location of this unit continue as scheduled.



SWMU 4

Spill Collection UST

Conclusions:

The unit consists of a 10,000-gallon, single-wall steel tank periodically used for spill collection. No releases from this unit have been documented. The unit is connected to floor drains throughout the facility. Facility representatives stated that the unit was used only once for storing nonhazardous contaminated groundwater. The potential for release to groundwater, surface water, air, and on-site soils is low.

Recommendations:

PRC recommends that the unit be leak tested.

SWMU 5

Dust Collection Area

Conclusions:

This unit is located outdoors on a concrete pad. The unit collects nonhazardous baghouse dust in covered 55-gallon drums. No releases from this unit have been documented. A storm sewer is located about 50 feet south of the unit. The potential for release to groundwater, surface water, air, and on-site soils is low.

Recommendations:

PRC recommends no further action for this SWMU at this time.

SWMU 6

Waste Oil Accumulation Area

Conclusions:

The unit is located indoors on a concrete floor and manages nonhazardous, nonvolatile waste oil in covered 55-gallon drums. No releases from this unit have been documented. Floor drains in the unit lead to the Spill Collection UST (SWMU 4). The potential for release to groundwater, surface water, air, and on-site soils is low.

Recommendations:

領提

61

PRC recommends no further action for this SWMU at this time.

SWMU 7

Laboratory SAA

Conclusions:

The unit is located in the facility's on-site laboratory on a concrete floor covered with polyethylene sheeting. Polyethylene sheeting also covers nearby walls. No releases from this unit have been documented. Paint-related wastes (F003 and F005) are stored in a covered, 55-gallon drum. The potential for release to groundwater, surface water, air, and on-site soils is low.

Recommendations:

PRC recommends no further action for this SWMU at this time.

SWMU 8

Former Waste Pile

Conclusions:

480

A A'

QD

aid

The unit was located outdoors on a gravel ground surface. The unit consisted of 131 cubic yards of contaminated soil (F003 and F005) on a 20-mil-thick polyethylene liner. The unit was also covered with polyethylene sheeting. A surface water drainage ditch is located about 20 feet south of the unit's former location. Several VOCs were identified in four of 29 soil samples collected during closure. VOC contaminant concentrations ranged from 5.8 to 577 ppb. No TCLP metals were detected. Morton awaits IEPA closure approval. The potential for release to environmental media is summarized below.

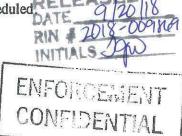
Groundwater: The potential for release is moderate. Several VOCs were identified in surface soil samples.

Surface Water: The potential for release is low. VOC contamination is contained below the ground surface.

Air: The potential for release is low. VOC contamination is contained below the ground surface.

Recommendations:

PRC recommends that RCRA closure continue as scheduled.



AOC 1

Old UST Farm

Conclusions:

In October 1989, seven of 14 fill lines were found to be leaking in this tank farm. Groundwater samples collected from inspection ports in this area had total VOC concentrations exceeding 25,000 ppm. VOCs were identified in subsurface soils about 3 feet west of the tank farm fill area. Ethylbenzene, toluene, and total xylenes were detected at a total concentration of 0.35 ppm in one soil sample collected about 5 feet bgs and 3 feet west of the tank farm fill area. Four groundwater monitoring wells were installed in December 1989. Facility representatives stated that no VOCs have been detected in these wells. The potential for release to environmental media is summarized below.

Surface Water: The potential for release is low. Possible contamination is contained below an asphalt ground surface. A surface water drainage ditch is located about 80 feet south of the unit area.

Air. The potential for release is low. Possible contamination is contained below an asphalt ground surface.

Recommendations:

PRC recommends that remediation of contaminated soils continue with the removal of the UST farm under IEPA supervision. Soil sampling of the excavation should be conducted to verify that all contaminated soil has been removed during remediation, and groundwater sampling should continue.

AOC 2

1-16

Heating Oil UST

Conclusions:

This AOC is an empty 10,000-gallon UST installed in 1979. The UST is constructed of single-wall steel and has not been leak tested. The facility plans to remove this UST after IEPA approval of the work plan. The potential for release to environmental media is moderate because of the unknown integrity of the 14-year-old, steel UST.

Recommendations:

PRC recommends that removal of the UST proceed under IEPA supervision.

Soil sampling of the excavation should be conducted to verify that all potentially contaminated soil was removed.



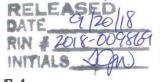
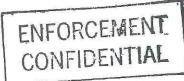


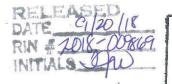
TABLE 4 SWMU AND AOC SUMMARY



- 	SWMU		Evidence of Release	Recommended Further Action
1	Former CSA	1979 to 1984	None	No further action
2.	Distillation Unit Area	1986 to present	None	No further action
3.	Waste Solvent AST	1984 to present	131 cubic yards of VOC-contaminated soil was excavated and disposed off site	Continue backfilling approval as scheduled
4.	Spill Collection UST	1979 to present	None	Conduct leak testing on the unit
5.	Dust Collection Area	1979 to present	None	No further action
6.	Waste Oil Accumu ation Area	1979 to present	None	No further action
7.	Laboratory SAA	1979 to present	None	No further action
8.	Former Waste Pile	1991 to 1992	None	Continue RCRA closure as scheduled

118

1 #



ENFORCEMENT CONFIDENTIAL

TABLE 4 (continued) SWMU AND AOC SUMMARY

AOC	Dates of Operation	Evidence of Release	Recommended Further Action
1. Old UST Farm	1979 to 1992	VOCs identified in groundwater and on-site soils	Remediate contaminated soils with the removal of the UST farm under IEPA supervision; sample soil from the excavation to verify that all contaminated soil has been removed during remediation, and continue groundwater sampling.
2. Heating Oil UST	1979 to 1986	None	Remove UST under IEPA supervision; sample soil from the excavation to verify that all potentially contaminated soil was removed

114

山事

110

94 4

(607

(:)

REFERENCES

- CH2M Hill. Inc. (CH2M). 1990. "Initial Site Investigation Report, Prepared For Whittaker Coatings Batavia Division, Batavia, Illinois." February.
- IT Corporation (IT). 1992a. "Closure Plan, Morton International, Incorporated, Batavia Plant."

 March.
- IT. 1992b. Letter Regarding Metal Analysis for Soil Pile Closure. From Theodore M. Slavik, Project Engineer. To Thomas D. Gentner, Senior Environmental Engineer, Morton International, Inc., Batavia (Morton). November 18.
- IT. 1993. Letter Regarding Scope of Work to Complete Closure. From Theodore M. Slavik, Project Engineer. To Thomas Gentner, Senior Environmental Engineer, Morton. February 16.
- Illinois Environmental Protection Agency (IEPA). 1982. Letter Regarding Violations Observed During Compliance Evaluation Inspection (CEI) of February 2, 1982. From Kenneth P. Bechely, North Region Manager. To Hank Szymanski, Whittaker Corporation, Batavia Coatings and Chemicals Division (Whittaker). March 8.
- IEPA. 1988. Letter Regarding Resolution of Violations Observed During CEI of March 15, 1988. From Angela Aye Tin, Manager. To Eugene Murphy, Whittaker. June 22.
- IEPA. 1989. Letter Regarding Withdrawal of Part A Permit Application. From Lawrence W. Eastep, Manager, Permit Section. To Brian Maher, Whittaker. September 17.
- IEPA. 1991. Letter Regarding Request for RCRA Closure. From Robert A. Carson, Acting Manager, Immediate Removal Unit. To Thomas D. Gentner, Morton. October 17.
- IEPA. 1992. Letter Regarding Closure Plan Approval. From Lawrence W. Eastep, Manager, Permit Section. To Thomas D. Gentner, Morton. May 29.
- Morton Coatings, Inc. 1990. Letter Regarding Change of Ownership. From Eugene M. Murphy, Vice President, Operations. To Jim Pierce, Division of Land Pollution Control, Illinois Environmental Protection Agency (IEPA). April 18.
- Morton International, Inc. Batavia (Morton). 1992. Letter Regarding Closure Sampling Data and Report. From Thomas D. Gentner, Manager, Environmental Affairs. To Hernando Albarracin, IEPA. October 30.
- Morton. 1993. Letter Regarding Information Requested During Visual Site Inspection (VSI) on May 12, 1993. From Ritu Chaudhari Dhingra, Senior Environmental Engineer. To Keith Foszez, PRC Environmental Management, Inc. (PRC). May 17.

ಠ©:

- PRC Environmental Management, Inc. (PRC). 1993a. Record of Telephone Conversation Regarding City of Batavia Well Fields. Between Keith Foszcz, Environmental Engineer, and John Dillon, Batavia Water Works. April 27.
- PRC. 1993b. Record of Telephone Conversation Regarding Flood Zone. Between Keith Foszcz, Environmental Engineer, and Scott Haines, City of Batavia. April 27.
- PRC. 1993c. Record of Telephone Conversation Regarding Municipality Surface Water Intake. Between Keith Foszcz, Environmental Engineer, and the City of Aurora Water Department. April 29.
- PRC. 1993d. Record of Telephone Conversation Regarding Follow-up Visual Site Inspection (VSI) Questions. Between Keith Foszcz, Environmental Engineer, and Gene Murphy, Vice President, Operations, Morton. May 26.
- PRC. 1993a. Record of Telephone Conversation Regarding Follow-up VSI Questions. Between Keith Foszcz, Environmental Engineer, and Gene Murphy, Vice President, Operations, Morton. June 1.
- PRC. 1993. Record of Telephone Conversation Regarding Closure Approval. Between Keith Foszcz, Environmental Engineer, and Tom Gentner, Morton. July 7.
- Rand McNally. 1992. Road Atlas, United States, Canada, Mexico.

i 🏥

21個

- U.S. Department of Commerce (USDOC). 1963. "Rainfall Frequency Atlas of the United States." U.S. Government Printing Office. Washington, D.C. Technical Paper No. 40.
- USDOC. 1968. "Climatic Atlas of the United States." U.S. Government Printing Office. Washington, D.C.
- USDOC. 1974. "Climates of the States." Officials of the National Oceanic and Atmospheric Administration. Water Information Center, Inc. Volume 1.
- U.S. Department of the Interior (DOI). 1984. "National Wetlands Inventory, Aurora North Quacrangle, Illinois." U.S. Fish and Wildlife Service. April.
- DOI. 1989. "Endangered Species List." U.S. Fish and Wildlife Service, Division of Endangered Species. March.
- U.S. Environmental Protection Agency (EPA). 1988. Letter Regarding Violations Observed During CEI of March 15, 1988. From Paul E. Dimock, Chief, Enforcement Programs Section. To Gene Murphy, Whittaker. May 11.
- U.S. Geological Survey (USGS). 1972. Aurora North Quadrangle, Illinois. 7.5-Minute Series Topographic Map.
- Whittaker Corporation, Batavia Coatings and Chemicals Division (Whittaker). 1980a. Notification of Hazardous Waste Activity Form. EPA Form 8700-12. August 18.

Whittaker. 1980b. Part A Permit Application. EPA Form 3510-1. November 19.

Whittaker 1989. Letter Regarding Release From Underground Storage Tank Farm. From Eugene M. Murphy, Vice President, Operations. To Stephen A. Colantino, Leaking Underground Storage Tank Program Manager, IEPA. November 30.

APPENDIX A EPA PRELIMINARY ASSESSMENT FORM 2070-12 (One Page)



POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICA	TION	
01 STATE	02 SITE NUMBER	
IL.	ILD 095 309 647	

Batavia 09 COURDINATES: LATE 'UDE	1500 La 24 STATE IL 1 north, 02 STREE 100 No 14 STATE IL 08 STREE 10 STATE 10 C. STATE 10 C. STATE 10 C. STATE 10 C. STATE 11 C. STATE 12 C. STATE 13 C. STATE 14 C. STATE 15 C. STATE 16 C. STATE 17 C. STATE 18 C. STATE 19 C. STATE 10 C. STATE 10 C. STATE 10 C. STATE 11 C. STATE 12 C. STATE 13 C. STATE 14 C. STATE 15 C. STATE 16 C. STATE 17 C. STATE 18 C. STATE 19 C. STATE 10 C. STATE 10 C. STATE 10 C. STATE 11 C. STATE 12 C. STATE 13 C. STATE 14 C. STATE 16 C. STATE 17 C. STATE 18 C. STATE 18 C. STATE 18 C. STATE 19 C. STATE 10 C. STATE	to Lathern Street O5 ZIP CODE 60510 to Lathern Sreet It (Business, mailing) O5 ZIP CODE 60606 IT (Business, mailing) 11 ZIP CODE CT (Business, mailing)	et east. object	DUNTY OS CONG DE DIST 89
Morton International, Inc., Batavia (Morton) C3 CITY Batavia O9 COURDINATES: LATITUDE	1500 La 24 STATE IL 1 north, 02 STREE 100 No 14 STATE IL 08 STREE 10 STATE 10 C. STATE 10 C. STATE 10 C. STATE 10 C. STATE 11 C. STATE 12 C. STATE 13 C. STATE 14 C. STATE 15 C. STATE 16 C. STATE 17 C. STATE 18 C. STATE 19 C. STATE 10 C. STATE 10 C. STATE 10 C. STATE 11 C. STATE 12 C. STATE 13 C. STATE 14 C. STATE 15 C. STATE 16 C. STATE 17 C. STATE 18 C. STATE 19 C. STATE 10 C. STATE 10 C. STATE 10 C. STATE 11 C. STATE 12 C. STATE 13 C. STATE 14 C. STATE 16 C. STATE 17 C. STATE 18 C. STATE 18 C. STATE 18 C. STATE 19 C. STATE 10 C. STATE	o5 ZIP CODE 60510 to Lathern Sree It (Business, maili rth Riverside P 05 ZIP CODE 60606 IT (Business, maili 11 ZIP CODE CONOWN	o8 COUNTY O7 CO Kane CO ct east. o6 TELEPHONE NUMBER (312) 807-2670 og. residential) 12 TELEPHONE NUMBER COUNTY □ E. M	DUNTY OS CONG DE DIST R R MUNICIPAL
Batavia O9 COORDINATES: LATT'UDE	IL I north, 02 STREE 100 No. 14 STATE IL 08 STREE 0 STATE C. STA	to Lathern Sree IT (Business, medicith Riverside P O5 ZIP CODE 60606 IT (Business, medicity) 11 ZIP CODE CNOWN	et east. object	DDE DIST 89 DIST R R MUNICIPAL
41°52'5" N 88°16'17" W 10 DIRECTIONS "O SITE Starting from nearest public road) Take State Route 31 into Batavia to Batavia Road east, to Kirk Road III. RESPONSIBLE PARTIES 21 CWITER if known in Morton International, Inc. 23 CITY Chicago 27 OPERATOR If known and different from owner) Sarrie 29 CITY 13 "YPE OF OWNERSHIP (Check one) BA PRIVATE B. FEDERAL: [Agency Name] 4. OWNER/OPERATOR NUTIFICATION ON FILE (Check all that apply) BA, RCRA 3010 DATE RECEIVED: BA, RCRA 3010 DATE RECEIVED: BY (Check all that apply) A, RCRA 3010 DATE SCRIVED: BY (Check all that apply) A, EPA B, EPA CONTR WY'S DATE 5/12/93 CONTRACTOR NAME(SI: PRC Enviro) 22 SITE STATUS (Check one) BA, ACTIVE B, INACTIVE C.UNKNOWN 03 YEA 04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED	02 STREE 100 No 14 STATE IL 08 STREE 10 STATE 11 C. STATE 12 C. STATE 13 G. UNK 14 VASTE SIT	T (Business, meilinth Riverside P 05 ZIP CODE 60606 IT (Business, meilint) 11 ZIP CODE TE D. CNOWN	ng residential) laza 06 TELEPHONE NUMBE (312) 807-2670 ng, residential) 12 TELEPHONE NUMBE COUNTY □ E. M	MUNICIPAL
Take State Route 31 into Batavia to Batavia Road east, to Kirk Road III. RESPONSIBLE PARTIES 21 CWHER If Incomm! Morton International, Inc. 23 CITY Chicago 27 OPERATOR (If known and different from owned) Same 39 CITY 23 TYPE OF OWNERSHIP (Chack one) B. A. PRIVATE B. FEDERAL: (Agency Name) 14. OWHER/OPERATOR NUTHFICATION ON FILE (Chack all that apply) B. A. RCRA 3010 DATE RECEIVED: B. A. RCRA 3010 DATE RECEIVED: B. Y. CHARACTERIZATION OF POTENTIAL HAZARD 01 ON SITE INSPECTION B. YES DATE 5/12/93 CONTRACTOR NAME(S): PRC Environ 02 SITE STATUS (Chack one) B. A. ACTIVE B. INACTIVE C. C.UNKNOWN 03 YEA 04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED	02 STREE 100 No 14 STATE IL 08 STREE 10 STATE 11 C. STATE 12 C. STATE 13 G. UNK 14 VASTE SIT	T (Business, meilinth Riverside P 05 ZIP CODE 60606 IT (Business, meilint) 11 ZIP CODE TE D. CNOWN	ng residential) laza 06 TELEPHONE NUMBE (312) 807-2670 ng, residential) 12 TELEPHONE NUMBE COUNTY □ E. M	MUNICIPAL
Morton International, Inc. 33 CITY Chicago 37 OPERATOR (If known and different from owned) Same 39 CITY 39 CITY 39 CITY 13 TYPE OF OWNERSHIP (Check one) B A PRIVATE B B. FEDERAL: (Agency Name) 14. OWNER/OPERATOR NUTIFICATION ON FILE (Check all that apply) B A. RCRA 3010 DATE RECEIVED: 8 / 18 / 80 BI UNCONTROLLED WITHOUT DATE (Check all that apply) B A. RCRA 3010 DATE RECEIVED: 8 / 18 / 80 BI UNCONTROLLED WITHOUT DATE (Check all that apply) 17 CHARACTERIZATION OF POTENTIAL HAZARD 18 ON STE INSPECTION BY (Check all that apply) B A. EPA B B. EPA CONTROLLED CONTRACTOR NAME(S): PRC Environ 19 CONTRACTOR NAME(S): PRC Environ 20 SITE STATUS (Check one) B A. ACTIVE B B. INACTIVE D C.UNKNOWN 30 CITY CONTRACTOR NAME(S): PRC Environ 41 C.UNKNOWN 42 CONTRACTOR NAME(S): PRC Environ 43 CITY CONTRACTOR NAME(S): PRC Environ 44 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED	100 No. 04 STATE IL 08 STREE 0 STATE C. STATE G. UNK	of ZIP CODE 60606 IT (Business, mellium 11 ZIP CODE D. C. STATE	OB TELEPHONE NUMBER (312) 807-2670 Ing. residential) 12 TELEPHONE NUMBER COUNTY	MUNICIPAL
Morton International, Inc. 03 CITY Chicago 07 OPERATOR (If known and different from owner) Sarrie 09 CITY 13 TYPE OF OWNERSHIP (Check one) B A PRIVATE B. FEDERAL: (Agency Name) F. OTHER (Specify) 14. OWNER/OPERATOR NOTHIFICATION ON FILE (Check all that apply) B A. RCRA 3010 DATE RECEIVED: 8 / 18 / 80 MONTH DAY YEAR 17. CHARACTERIZATION OF POTENTIAL HAZARD 01 ON S TE INSPECTION BY (Check all that apply) D A. EPA B B. EPA CONTR B YES DATE 5/12/93 CONTRACTOR NAME(S): PRC Environ 02 SITE STATUS (Check one) B A. ACTIVE B B. INACTIVE G C.UNKNOWN 03 YEAR 04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED	100 No. 04 STATE IL 08 STREE 0 STATE C. STATE G. UNK	of ZIP CODE 60606 IT (Business, mellium 11 ZIP CODE D. C. STATE	OB TELEPHONE NUMBER (312) 807-2670 Ing. residential) 12 TELEPHONE NUMBER COUNTY	MUNICIPAL
Chicago O7 OPERATOR (If known and different from owner) Sartice O9 CITY 13 TYPE OF OWNERSHIP (Check one) A PRIVATE B. FEDERAL: (Agency Name) F. OTHER (Specify) 14, OWNER/OPERATOR N(ITIFICATION ON FILE (Check all that apply) A. RCRA 3010 DATE RECEIVED: 8 / 18 / 80 BI UNCONTROLLED WINDOWN MONTH DAY YEAR IV. CHARACTERIZATION OF POTENTIAL HAZARD O1 ON SITE INSPECTION BY (Check all that apply) A. EPA B. EPA CONTR BY YES DATE 5/12/93 CONTRACTOR NAME(S): PRC Environ O2 SITE STATUS (Check ane) BA. ACTIVE B. INACTIVE C. C.UNKNOWN O4 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED	IL OB STREE C. STATE G. UNK VASTE SIT	11 ZIP CODE TE D. CNOWN C. STATE	(312) 807-2670 ing, residential) 12 TELEPHONE NUMBER COUNTY	MUNICIPAL
SATICE 39 CITY 13 TYPE OF OWNERSHIP (Check one) A PRIVATE	C. STATE G. UNK VASTE SIT	11 ZIP CODE TE D. TE (CERCLA 103 C	12 TELEPHONE NUMBER COUNTY	MUNICIPAL
STYPE OF OWNERSHIP Check one)	C. STA	TE (CERCLA 103 d	COUNTY DE. M	MUNICIPAL
B. PRIVATE B. FEDERAL: (Agency Name)	G. UNK	TE (CERCLA 103 d	c) DATE RECEIVED: MOI	/ / □ C. NONE
## A. RCRA 3010 DATE RECEIVED: 8 / 18 / 80 ## UNCONTROLLED V MONTH DAY YEAR IV. CHARACTERIZATION OF POTENTIAL HAZARD O1 ON SITE INSPECTION BY:S DATE 5/12/93	ACTOR	□ C. STATE	MOI	NTH DAY YEAR
BY (Check all that apply) A. EPA B. EPA CONTR Y'S DATE 5/12/93 CONTRACTOR NAME(S): PRC Environ		•	☐ D. OTHER	R CONTRACTOR
DATE 5/12/93 DE LOCAL HEALTH OFFICIAL CONTRACTOR NAME(S): PRC Environ OZ SITE STATUS (Check ane) B. A. ACTIVE D. B. INACTIVE D. C.UNKNOWN O4 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED		•	☐ D. OTHER	R CONTRACTOR
M A. ACTIVE B. INACTIVE C.UNKNOWN 04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED	nmental	_	(Specify)	
	RS OF OP			⊒ UNKNOWN
Hazardous wastes currently handled by Morton include F003 and F005 waste	s (waste :	solvents, still bot	toms, and paint-related t	wastes).
DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION Volatile organic compound (VOC) subsurface soil contamination was tank, and a underground storage tank farm was found to be leaking and remedial activities.				
V PRIORITY ASSESSMENT	an-managaran da	A-2000 A-200		200000000000000000000000000000000000000
01 PRIOR TY FOR INSPECTION (Check one. If high or medium is checked, complete Pa		D. NON	E	
(Inspection required promptly) (Inspection required) (Inspect on time-sylvanian ATTANA	zileble ba	sis) (No further	action needed; complate	current disposition form)
VI. INFORMATION AVAILABLE FROM 01 CONTACT Kovin Pierard 02 OF (Agancy/Organizati EPA	on)	LINE CONTRACTOR OF THE PARTY OF		03 TELEPHONE NUMBER (312) 886-4448
CO PESSON RESPONSIBLE FOR ASSESSMENT OF AGENCY Keith Foszcz		·/**********************************	07 TELEPHONE COURS	OS DATE

APPENDIX B VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS (Six Pages)

VISUAL SITE INSPECTION SUMMARY

Morton International, Inc., Batavia
(Formerly Whittaker Corporation, Batavia Coatings and Chemicals Division)
1500 Lathem Street
Batavia, Illinois 60510
ILD 095 309 647

Date:

May 12, 1993

Primary Facility Representative: Representative Telephone No.: Additional Facility Representatives: Eugene Murphy, Vice President of Operations

(708) 879-6800

Ritu Chaudhari Dhingra, Senior Environmental Engineer

Inspection Team:

Keith Foszcz, PRC Environmental Management, Inc. (PRC)

Tom Girman, PRC

Photographer:

27

Tom Girman, PRC

Weather Conditions:

Windy, clear, temperature about 65 °F

Summary of Activities:

The visual site inspection (VSI) began at 1:20 p.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the facility's past and current operations, solid wastes generated, and release history. Facility representatives provided the inspection team with copies of requested documents.

The VSI tour began at 2:40 p.m. Morton representatives discussed specific operations conducted at the facility as the tour progressed. PRC inspected solid waste management units (SWMU) including the Former Container Storage Area (CSA) (SWMU 1), the Distillation Unit Area (SWMU 2), the Waste Solvent Aboveground Storage Tank (SWMU 3), Dust Collection Area (SWMU 5), the Waste Oil Accumulation Area (SWMU 6), the Laboratory SAA (SWMU 7), and the Former Waste Pile (SWMU 8). Photographs were taken of all SWMUs except for SWMUs 4 and 6. PRC also inspected one area of concern (AOC) identified in this report: the Old UST Farm (AOC 1).

The tour concluded at 3:30 p.m., after which the inspection team held an exit meeting with facility representatives. The VSI was completed and the inspection team left the facility at 3:50 p.m.



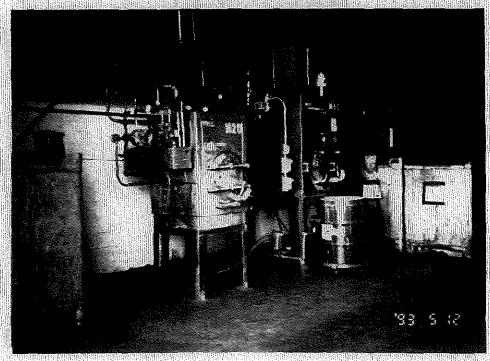
Photograph No. 1

Orientation: East

Location: SWMU 1

Date: May 12, 1993

Description: Four-hundred-gallon totes of hazardous waste solvent were stored in this Former CSA until 1984. Sometime after waste storage ceased in this unit, the area was paved with asphalt and is currently used to store of empty drums for product shipping.



Photograph No. 2

Orientation: Southwest

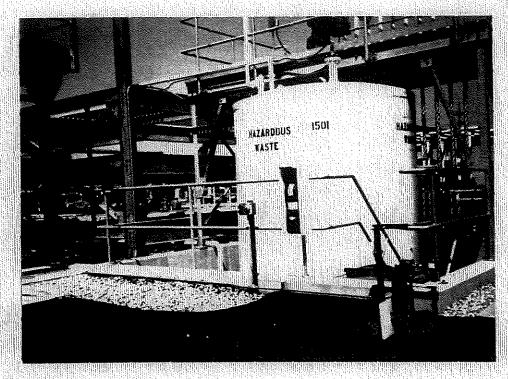
Location: SWMU 2 Date: May 12, 1993

Description: Waste solvent is brought to these Distillation Units in 400-gallon totes for treatment.

Still bottoms are pumped directly from the Distillation Units to SWMU 3. The drum

in front of the unit on the right is used to collect nonpumpable still bottoms scraped

out of the stills.

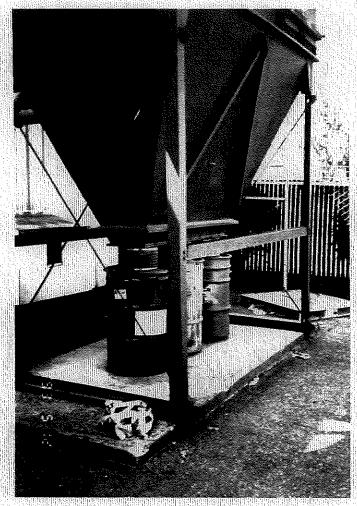


Photograph No. 3
Orientation: Northeast

Description: Still bottoms are pumped to this Waste Solvent AST from SWMU 2. The unit was formerly located about 25 feet north of its current location.

Location: SWMU 3

Date: May 12, 1993



Photograph No. 4 Location: SWMU 5
Orientation: Northwest Date: May 12, 1993
Description: Baghouse dust drops from the dust collection system into these Dust Collection

Baghouse dust drops from the dust collection system into these Dust Collection Drums. Drums are suspended from the system by rubber ducts, and as the drum fills with waste, the duct expands and the drum rests on the concrete.



Photograph No. 5
Orientation: East

Location: SWMU 7
Date: May 12, 1993

Description: Paint-related waste (F003 and F005) generated from laboratory quality control accumulates in this Laboratory SAA. The floor and two walls around the unit are

covered with polyethylene sheeting.



Photograph No. 6
Orientation: Southeast

Description: Volatile organic compound (VOC)-contaminated soil excavated from the former location of SWMU 3 was stored in this Former Waste Pile on a 20-mil-thick polyethylene liner. The orange flag marks sampling locations associated with the closure of this SWMU.

Location: SWMU 8

Date: May 12, 1993



Photograph No. 7

Orientation: Northeast

Description: The fill station for this Old UST Farm is shown in the foreground, and UST vent

The fill station for this Old UST Farm is shown in the foreground, and UST vent lines are shown in the background. The fill lines identified as leaking during 1989

tightness testing are painted red.

APPENDIX C VISUAL SITE INSPECTION FIELD NOTES

May 12 1993 133 1300 USTs taken out & service in Oct 1992 Corpora

Wed May 12, 1993 May 12, 1993 134 stillation process have no outside soit 003, F005 1998 report 38 000 gals Clean Harbors of Chiag-Auguntes Industries, Cottage Grove and transporter to TSD ue (blended

Wed May 12, 1993 冯又 4/00-500 gal total 115 Th Crown Carlow Forting EPA/# 089010/ABZ unstead still pottom 1792

Wed May 12,1993 Q wed May 12,1993 139 tunk / 2 compostment To See Generato Report. 240 989 5 sill Collection lank attles open to 400 gallon batch

Wed my 12, 1893 141 140 255 P3 North pas Bankous A5-15 x 15 feet x 5 ff peop 243 PZ 50/ South of the AST 243 Fast DIA UST gent (enes - No detects P4 Northeast old UST 300 nouting for IEPA hater

Wed May 12, 1993 Wed May 12, 1893 143 mena product 200 galfyr. Stills 320 KW 1000 ga/s 325 SAA-East Waste Sohals bough Vistuene walls and for 330

16 4057081 neveried 350 Exit 65°F

5/12/43

MORTON International
Barbaria Facility
1500 LATHEN, BATANIA IL

Sunny, westerfy breeze; ~ 72°F

Pec: Fein Foszez, Ton birman Arrive @ ## 578 1:00 Pm

west u/ R:tu Chaudhari Dhingra (Sr. End Eng.) (Corp.)

Gene Murphy

LL S T

Ex-Tonk Form taken out of service \$ 10/92 (UST)

Spill containant: \$1:11 in use (used 1 +: me) '89 Whittaker,

\$000 gel. pumpled H2D Gr. 010 tank form Inspect. ports (post-leak, detect.)

the analyzed sh: ppeal 066-site foot to Baye Environmental

HIGTORY

Bilt by Whittaker 1 - 79; Morton purch. 4/1/90

Prior to " undeveloped, Ern land;

Prod. / processes same now as for Whitt.;

Manufact indust. coatings (posts, enample, contings - 31c 2851)

Solve t-bad parents

PROCESS OPER.

Ras matil are blended :- process area; pockeged stored Efor shipped allsite;

Raw mail in BM storage area & Balk storage area

* Waste service Con cleaning oper. (Forza per)

cleaning solor & govern here, MEK

Dist. 11 off spec prod., equipme. Cleaning Solu.

WHITE: Food, Food (92 Vol.) 36, 605 gell. (Fuel blending-commerkille

(fr. 54:11)

Augustes Tudistries (Clean Horbors of Chicago

Correge Grove, IL Chicago, IL

(transp. by Mr. Frank)

(192) 970 Kgel. Water in except. Foos, Foos

Trade Wastes Incomeration
Sauget, IL

12) Cant. soil

Chen Waste Magnet CID

Calumet, II

(15 gener. Fooz, last year and gener.) MEK

TACILITY INFO

84 employees (incl solos people) 3 shifts; electronic. controlled

access (no guard); Fenced fecility.

All drains when facility (3-4) drain to spill containent.

Storm water: I storm sower in parking lot (fact); area chains to retained letention pond b-4 discharge to Fox R.

Air per-:+ for bland. operation: 089010 ABZ

No HPUES; No Pretreated penits; no process No Discharged to saver

Tour Wireland

₹ (

45

27

ころ

風に

5

Row onel storage

Processing Area between 5 get - 5500 ged. between Blending tants. vented to chot collector a / drum/no. to waste tank

Poquent's collected by Dest collector into 55

Shows former DSA; 10W M.T. druns

(Druns Shoved here some on grovel

40 pm monitor well abt 30' east; installed 1790

No detection of contomin.

Her. warre trank; Trank Farm : - background,
Fill station to left; 2° Cont. concrete, pit ~ 5'

(Formerly located about 25' to left)

THE in foreground; tomas will be pulled site remed.

punding plan approval.

Durty pails recycled in son trader

ISE Flags outline Corner Location;

Distill wite; vaccuum stills;

No cracks in concrete; Tota filled w/disty solvent

is netered into Distill, units; Still unite purped

distilly into 5000 gal. Ast

Drums of collecti chart majoral w/ liq.,

pumped into 5000 gal Ast (by posses Distill.)

b) Distill units center; dirty solvent's left; dun dirty

iii Solvent missed of Dust collector (Accuse cleater 1/18/93

Gen. 100 gal, 2xi/yr

Lab - glevates some paint wester goes to Distill.

Ked will supply: MN 126 00 and Former DSA (supple 126)